

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The claims have been amended to delete TBA as supported by the claims and specification as originally filed.

Claims 16-19 have been added as supported by the examples in the specification.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-15 will now be active in this application.

Most notably, the Examiner did not find the data to be commensurate in scope with the claims as currently written. The Examiner notes that the examples in the specification only disclose the use of TBMA while the claims recite the use of TBMA and/or t-butyl acrylate (TBA). Thus, TBA was now deleted from the claims.

Further, the Examiner takes issue with the claimed range of TBMA/TBA and does not find the data commensurate in scope. One way to address the prior art rejection is to limit the claims to TBMA and to the range of data shown in the specification. Such range was included in Claims 2, 4, 14-15 and 16-19.

Further, the present invention as set forth in **amended Claim 1** relates to a process for producing foamable crosslinked polymers, comprising:

polymerizing a mixture comprising

(A) 30-70 parts by weight of (meth)acrylic acid,

30-60 parts by weight of (meth)acrylonitrile,

- 0-30 parts by weight of other monomers having vinyl unsaturation,
(B) 0.01-15 parts by weight of tert-butyl methacrylate,
(C) 0.01-10 parts by weight of blowing agent,
(D) 0.01-10 parts by weight of crosslinking agent,
(E) 0.01 to 2 parts by weight of polymerization initiators and
(F) 0 to 20 parts by weight of conventional additives

in bulk to give a sheet;

wherein said sheet is optionally subjected to the following treatment:

heat-conditioning and then foaming at temperatures of from 150 to 250°C.

Claim 3 relates to a foamable crosslinked polymer comprising

- (A) 30-70 parts by weight of (meth)acrylic acid,
30-60 parts by weight of (meth)acrylonitrile,
0-30 parts by weight of other monomers having vinyl unsaturation,
(B) 0.01-15 parts by weight of tert-butyl methacrylate,
(C) 0.01-10 parts by weight of blowing agent,
(D) 0.01-10 parts by weight of crosslinking agent,
(E) 0.01 to 2 parts by weight of polymerization initiators and
(F) 0 to 20 parts by weight of conventional additives.

Claims 14 and 15 are based on Claims 1 and 3 with component (B) being 0.01-15 parts by weight of tert-butyl methacrylate.

The remaining claims are dependent claims.

Geyer does not disclose the use of t-butyl (meth)acrylate. Tada discloses the use of large amounts of 5 to 50% the weight of t-butyl (meth)acrylate.

The secondary reference does not recognize that amounts between 0.01 and 15 parts by weight give foams with good thermo-mechanical properties and extremely fine and uniform pore structure. See page 9, lines 22-26, page 9, lines 28-39 of the specification, as well as the examples starting at page 14.

Col. 4 of Geyer which discloses generally the use of esters of methacrylic acid of C1-4 alcohols up to 20 wt%. However, the specific use of t-bu-methacrylate is not mentioned or exemplified. The 7th Example from the top of table 1 of Tada uses 10 parts of TBMA. It would NOT have been obvious to use 10 parts of TBMA in Geyer. Applicants refer to the above-mentioned disclosure at page 9 which mentions superior thermo-mechanical properties. Table 4 also provides mechanical properties.

Moreover, TBMA and TBA are comparable and it is therefore believed that additional comparative data are not necessary.

Furthermore, please be informed that the corresponding EP patent has been granted under EP 1678244 B1 with TBMA and TBA.

However, in Claims 14 and 15, there is no TBA in component (B).

Tada et al, Stein, Wu, Zacharopoulos, Nienwendijk and Baumann do not cure the defects of Geyer et al.

Therefore, the rejection of the claims under 35 U.S.C. § 103(a) over Geyer et al, in view of Tada et al, Stein, Wu, Zacharopoulos, Nienwendijk and Baumann are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of the Claims 1 and 3 as failing to comply with the written description requirement is traversed. (Meth)acrylic acid and (meth)acrylo nitrile have been claimed as supported at page 10, lines 22-29 of the specification. Thus, Applicants believe there to be adequate support for (meth)acrylic acid and (meth)acrylo nitrile. Also, a product of the process of the present invention is poly(meth)acrylimide. The rejections of the claims as failing to comply with the written description requirement should be withdrawn.

The objection to Claim 11 is obviated by the amendment of Claim 11.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

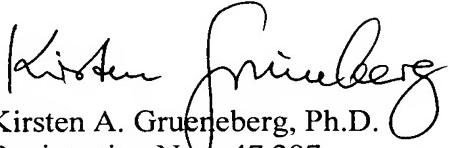
Respectfully submitted,

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